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EXAMINER

ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/439,771

Applicant(s)

INOSHITA ET AL.

Examiner

Christopher Onuaku

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 and 25-29 is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/25/05 have been fully considered but they are not persuasive.

Applicant argues that Okada fails to disclose the limitation "wherein the second image data is compressed data representing second image to be reproduced in synchronization with the first images".

In response, Okada was not cited for disclosing the above limitation, as the examiner's rejections in the last Office Action and this Office Action show. Therefore, with reference to Okada, applicant's argument with respect to the aforesaid limitation is moot.

Applicant argues that Nanba fails to disclose the limitation "wherein the second image data is compressed data representing second image to be reproduced in synchronization with the first images". Applicant further argues that although Nanba teaches that multiple frames of a developed film are simultaneously displayed on the screen, but that Nanba does not teach that one of the frames is displayed in synchronization with the other frames.

In response, displaying frame A and frame B on a screen simultaneously, and displaying frame A on a screen in synchronization with frame B, both indicate that frame A and frame B were displayed on a screen at the same time

Webster's II New College Dictionary describes the word synchronize to mean: 1) to take place at the same time; 2) to operate in unison. The same Webster's II New English Dictionary describes the word simultaneous to mean: occurring, existing, or carried out at the same time.

The claimed limitation cites reproducing second image in synchronization with the first image. That is, second image and first image were reproduced at the same time. As shown in the rejections below, Nanba teaches displaying (reproducing) multiple (i.e., more than one) images simultaneously on a screen (i.e., any one image is the claimed "first" image and the other image is the claimed "second" image, and both are displayed on the screen simultaneously, or the "second" image is displayed on the screen in synchronization with "first" image.

Furthermore, Nanba teaches compressing image signals (see col.10, lines 20-31).

It is, therefore, clear that Nanba teaches the claimed limitation "wherein the second image data is compressed data representing second image to be reproduced in synchronization with the first images".

In addition, applicant argues that there is no motivation to combine OKada and Nanba.

In response, it is pertinent to point out that it is not necessary that the references actually suggest, expressly or in so many words, the changes or improvements that applicant has made. The test for combining references is what the references as a whole would have suggested to one of ordinary skill in the art. In re Sheckler, 168

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USPQ 716 (CCPA 1971); In re McLaughlin, 170 USPQ 209 (CCPA 1971); In re Young, 159 USPQ 725 (CCPA 1969).

Moreover, the test for obviousness is not whether the features of the reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the references make obvious to one of ordinary skill in the art. In re Bozek, 163 USPQ 545 (CCPA 1969); In re Richman, 165 USPQ 509, (CCPA 1970); In re Beckum, 169 USPQ 47 (CCPA 1971); In re Sneed, 710 F.2d 1544, 218 USPQ 385.

The desirable advantage of modifying the Okada system to display multiple images on a screen at the same time, as taught by Nanba, is enough motivation to combine Okada and Nanba.

The rejections are, therefore, maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al (US 6,549,722) in view of Nanba (US 5,541,644).

Regarding claim 13, Okada et al disclose a method disk and apparatus for system encoding bitstreams to connect seamlessly thereof, including bitstreams for use in an authoring system for variously processing a data bitstream comprising video data,

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audio data, and sub-picture data constituting each of plural program titles containing related video, audio and sub-picture data content to generate a bitstream from which a new title containing the content desired by the user can be reproduced, and efficiently recording and reproducing the generated bitstream using a particular recording medium, comprising the method:

a) dividing each of the first image data and the second image data into a plurality of data units (packs/packets) each having an equal time length and an equal data size (see col.22, lines 29-37; col.23, lines 39-48; Fig.39, col.54 line 59 to col.55, line 3 and col.55, lines 52-55), note that the packs/packets are equal in size and the transfer/playback time is inherently the same;

b) generating a data stream in which the data units of the first image data are arranged in a reproduction order, in which the data units of the second image data are arranged in a reproduction order, and in which each of the data units of the first image data and each of the data units of the second image data are alternately arranged (see Fig.70, col.36 lines 18-40); and

c) recording the data stream onto the recording medium (see Fig.2, col.10, lines 7-16; Fig.25, col.26, lines 16-31 and col.28, lines 54-59).

Okada discloses the method wherein the second image data is compressed data representing second image (see col.18, lines 25-33). Okada fails to explicitly disclose the method wherein the second image is to be reproduced in synchronization with the first images. Namba teaches image reproducing apparatus for reproducing photographed images recorded on a developed film on a television monitor, including a

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television monitor where in multiple images are simultaneously displayed on a screen so that, for example, the user can conveniently program a desired presentation (see col.5, lines 9-34; and col.8, lines 28-38).

It would have been obvious to modify Okada by realizing Okada with the means to simultaneously display images on a screen, as taught by Nanba, in order that, for example, a user can conveniently program a desired presentation.

Regarding claim 14, Okada discloses the method wherein the data stream is generated in accordance with a DVD standard (see col.26, lines 15-31), and each of the plurality of data units includes one or a plurality of video object units (VOBUs) (see Fig.16&18; col.20, line 60 to col.22, line 13).

Regarding claim 15, Okada discloses the method wherein the first image data and the second image data are generated by converting variable rate compressed data by using an MPEG compression method into fixed rate compressed data (see col.24, lines 29-47).

Regarding claim 16, Okada discloses the method wherein a plurality of data sets each comprising one of the data units of the first image data and one of the data units of the second image data that is located next to the one of the data units of the first image data are formed in the data stream, and audio data is added to each of the plurality of

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data sets in the process of generating the data stream (see Fig.16,17&18; col.21 line 63 to col.22, line 28).

Regarding claim 17, Okada discloses the method wherein a plurality of data sets each comprising one of the data units of the first image data and one of the data units of the second image data that is located next to the one of the data units of the first image data are formed in the data stream, and synchronization data is added to each of the plurality of data sets in the process of generating the data stream (see col.24, lines 38-55; col.25, lines 48-57 and col.23, lines 50-59 and col.24, lines 38-55).

Okada fails to explicitly disclose a synchronizing data for reproducing the first images with the second images. As discussed in claim 13 above, Namba teaches image reproducing apparatus for reproducing photographed images recorded on a developed film on a television monitor, including a television monitor where in multiple images are simultaneously displayed on a screen so that, for example, the user can conveniently program a desired presentation (see col.5, lines 9-34; and col.8, lines 28-38).

Regarding claim 18, the claimed limitations of claim 18 are accommodated in the discussions of claim 13 above.

Regarding claim 19, the claimed limitations of claim 19 are accommodated in the discussions of claim 14 above.

Regarding claim 20, the claimed limitations of claim 20 are accommodated in the discussions of claim 15 above.

Regarding claim 21, the claimed limitations of claim 22 are accommodated in the discussions of claim 16 above.

Regarding claim 22, the claimed limitations of claim 22 are accommodated in the discussions of claim 17 above.

4. Claims 23&24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al in view of Nanba and further in view of Yogeshwar et al (US 6,026,232).

Regarding claim 23, Okada and Nanba fail to explicitly disclose the method wherein in the dividing process, dummy data is added to the data units each so that the data units have an equal data size. Yogeshwar et al teach encoding systems in which a section of an encoded bitstream is replaced with a new section, including video encoding systems in which a section of encoded video is replaced in a manner which reduces decoding artifacts, comprising packs, and each pack comprising packet headers and stuffing fields. Yogeshwar further teaches that the structure of pack 970A is used when the packet 982A occupies between 2034 and 2027 bytes. The stuffing field 980A allows 1-8 bytes of stuffing to bring the total size of the pack to 2048 bytes. When the packet for video, audio, sub-picture, or playback information is less than 2027 bytes, a pack structure 970B as illustrated in Fig.44B is used which has a stuffing 980B of one

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byte and a packet for padding 984 which makes the total number of bytes for the packets 982B and 984B to be 2034 bytes (see Fig. 43,44A&44B; col.60, lines 51-65). Here Yogeshwar teaches the principle of using padding (dummy data) to bring data units to a desired byte size, in order, for example, to satisfy certain design consideration.

It would have been obvious to further modify Okada by realizing Okada with padding means, as taught by Yogeshwar, to bring data units to a desired byte size, in order, for example, to satisfy certain design consideration.

Regarding claim 24 the claimed limitations of claim 24 are accommodated in the discussions of claim 23 above.

Allowable Subject Matter

5. Claims 1-12&25-29 are allowable over the prior art of record.

6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the invention relates to an image data reproducing method, and image data reproducing apparatus for reading compressed image data from a recording medium so as to reproduce the image data, and to image data recording method and an image data recording apparatus for compressing image data so as to write the compressed image data onto a recording medium.

The closest reference Okada et al (US 6,549,722) disclose a method disk and apparatus for system encoding bitstreams to connect seamlessly thereof, including bitstreams for use in an authoring system for variously processing a data bitstream

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comprising video data, audio data, and sub-picture data constituting each of plural program titles containing related video, audio and sub-picture data content to generate a bitstream from which a new title containing the content desired by the user can be reproduced, and efficiently recording and reproducing the generated bitstream using a particular recording medium.

However, Okada fails to explicitly disclose a method of reproducing at least first images and second images simultaneously, synchronizing the first images with the second images, where the method comprises the processes of wherein, on the recording medium, each of the first image data and the second image data is divided into a plurality of data units each having an equal time length, each of the data units of the first image data and each of the data units of the second image data are alternately arranged on the recording medium, the data units are sequentially read from the recording medium in an order of an arrangement of the data units recorded on the recording medium, the process of storing the first image data and the process of storing the second image data are alternately carried out for each of the data units, and the process of decoding the first image data and the process of the second image data are carried out at a same decoding rate in a parallel manner.

Regarding claim 7, the invention relates to an image data reproducing method, and image data reproducing apparatus for reading compressed image data from a recording medium so as to reproduce the image data, and to image data recording

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method and an image data recording apparatus for compressing image data so as to write the compressed image data onto a recording medium.

The closest reference Okada et al (US 6,549,722) disclose a method disk and apparatus for system encoding bitstreams to connect seamlessly thereof, including bitstreams for use in an authoring system for variously processing a data bitstream comprising video data, audio data, and sub-picture data constituting each of plural program titles containing related video, audio and sub-picture data content to generate a bitstream from which a new title containing the content desired by the user can be reproduced, and efficiently recording and reproducing the generated bitstream using a particular recording medium.

However, Okada fails to explicitly disclose an apparatus for reproducing at least first images and second images simultaneously, synchronizing the first images with the second images, where the apparatus comprises wherein, on the recording medium, each of the first image data and the second image data is divided into a plurality of data units each having an equal time length, each of the data units of the first image data and each of the data units of the second image data are alternately arranged on the recording medium, the reading device sequentially reads the data units from the recording medium in on order of an arrangement of the data units recorded on the recording medium, an operation of storing the first image data into the first memory device and an operation of storing the second image data into the second memory device are alternately carried out for each of the data units, and the first decoding

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device and the second decoding device separately and simultaneously decode the first image data and the second image data at a same decoding rate.

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Onuaku whose telephone number is 571-272-7379. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


COO

6/29/05


James J. Groody
Supervisory Patent Examiner
Art Unit 262 2616